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09/532,020	03/21/2000	Jeffrey Paul Grundvig	GRUNDVIG 23	7469

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EXAMINER	
BEAMER, TEMICA M	

ART UNIT	PAPER NUMBER
2681	

DATE MAILED: 10/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/532,020	GRUNDVIG, JEFFREY PAUL	
	Examiner	Art Unit	
	Temica M. Beamer	2681	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 May 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed May 9, 2005 have been fully considered but they are not persuasive.

Applicant argues that Chung fails to disclose a digital **cordless** telephone system that utilizes **different encoding schemes**. The examiner, however, respectfully disagrees.

Chung does disclose in the title and throughout the specification that asymmetric speech coding is used in a digital cellular communications system. Although Chung never specifically says **cordless**, such a feature is inherent to the cellular system discussed. Specifically, Chung teaches that the claimed base unit (base station 104) and the claimed remote handset (transceiver 108) communicate with each other via radio frequency technology using an uplink channel and a downlink channel (col. 4, lines 25-63). Chung also teaches that the transceivers (108) are mobile or portable cellular phones (wireless phones) as well as fixed-location (corded) phones. Further, Chung teaches that the communication coding technique/scheme used between the base unit and the handset is asymmetric (i.e., not symmetric, different) (col. 3, lines 63-67).

Chung does not specifically disclose the different types of coding schemes claimed in the dependent claims, however, such schemes are known in the art as is well known and admitted in the specification of the present invention. Hence, Chung solely

and in combination with well-known prior art reads on the invention as presently claimed.

Therefore, based on the above remarks, and the teaching of Chung, the claims stand rejected as set forth below.

NOTE: In the previous office action, claim 23 was properly rejected under 102 (b) as being anticipated by Chung in col. 3, lines 13-23, however, the wrong patent (Iyengar) was referenced. The typographical error has been changed and is reflected in the present office action.

Terminal Disclaimer

2. The terminal disclaimer filed on 10/5/2005 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of Patent No. 6,349,213 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-5,10-15 and 17-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Chung, U.S. Patent No. 5,706,282.

Regarding claim 1, Chung discloses in a digital cordless telephone system, a full-duplex audio path between a base unit and a remote handset, comprising an unbalanced coding scheme wherein digital audio transmitted in a first direction over said full-duplex audio path is encoded using a first encoding scheme different from a second encoding scheme used to encode digital audio transmitted over said full-duplex audio path in a second direction opposite said first direction (col. 2, lines 13-23, col. 4, line 65-col. 6, line 23; figure 1).

Regarding claim 2, Chung discloses in a digital cordless telephone system, the full-duplex audio path between a base unit and a remote handset according to claim 1, wherein a first encoding algorithm of said first encoding scheme is different from a second encoding algorithm of said second encoding scheme (col. 2, lines 13-23, col. 4, line 65-col. 6, line 23).

Regarding claim 3, Chung discloses in a digital cordless telephone system, the full-duplex audio path between a base unit and a remote handset according to claim 1, wherein: a bit rate of said first encoding scheme is different from a bit rate of said second encoding scheme (col. 4, line 65-col. 5, line 27, col. 6, lines 1-23).

Regarding claim 4, Chung discloses in a digital cordless telephone system, the full-duplex audio path between a base unit and a remote handset according to claim 2 wherein a bit rate of said first encoding scheme is substantially equal to a bit rate of said second encoding scheme (col. 4, line 65-col. 5, line 27, col. 6, lines 1-23).

Regarding claim 5, Chung discloses in a digital cordless telephone system, the full-duplex audio path between a base unit and a remote handset according to claim 1,

wherein: said first encoding scheme is provided in a base unit of said digital cordless telephone system; and said second encoding scheme is provided in a remote handset of said digital cordless telephone system (col. 2, lines 13-23, col. 4, line 65-col. 6, line 23; figure 1).

Regarding claim 10, Chung discloses a method of providing an unbalanced coding scheme in a digital cordless telephone, comprising: providing a first radio frequency bandwidth for transmission of encoded digitized audio data from a base unit to a corresponding remote handset; and providing a second radio frequency bandwidth inherently different from said first radio frequency bandwidth, for transmission of encoded digitized audio data from said remote handset to said base unit (col. 2, lines 13-23, col. 4, line 65-col. 6, line 23; figure 1).

Regarding claim 11, Chung discloses the method of providing an unbalanced coding scheme in a digital cordless telephone according to claim 10, wherein: said first radio frequency bandwidth is inherently significantly larger than said second radio frequency bandwidth (col. Col. 6, lines 1-23).

Regarding claim 12, Chung discloses an apparatus for providing an unbalanced coding scheme in a digital cordless telephone, comprising: means for providing a first radio frequency bandwidth for transmission of encoded digitized audio data from a base unit to a corresponding remote handset; and means for providing a second radio frequency bandwidth different from said first radio frequency bandwidth, for transmission of encoded digitized audio data from said remote handset to said base unit (col. Col. 2, lines 13-23, col. 4, line 65-col. 6, line 23; figure 1).

Regarding claim 13, Chung discloses the apparatus for providing an unbalanced coding scheme in a digital cordless telephone according to claim 12, wherein: said first radio frequency bandwidth is significantly larger than said second radio frequency bandwidth (col. 6, lines 1-23).

Regarding claim 14, Chung discloses a digital cordless telephone system, comprising: a base unit having an audio encoding scheme of a first type; and a remote handset having an audio encoding scheme of a second type different from said first type (col. Col. 2, lines 13-23, col. 4, line 65-col. 6, line 23; figure 1).

Regarding claim 15, Chung discloses the digital cordless telephone system according to claim 14, wherein: said first type encoding scheme in said base unit has a faster bit rate than said second type encoding scheme in said remote handset (col. 6, lines 1-23).

Regarding claim 17, Chung discloses in a digital cordless telephone system, a full-duplex audio path between a base unit and a remote handset, comprising: an unbalanced coding scheme wherein digital audio transmitted in a first direction over said full-duplex audio path is encoded using a first analog-to-digital conversion precision different from a second analog-to-digital conversion precision used to encode digital audio transmitted over said full-duplex audio path in a second direction opposite said first direction (col. 2, lines 13-23, col. 4, line 65-col. 6, line 23, col. 6, lines 50-65; figure 1).

Regarding claim 18, Chung discloses in a digital cordless telephone system, the full-duplex audio path between a base unit and a remote handset according to claim

17 wherein: said first analog-to-digital precision is 12 bits or fewer; and said second analog-to-digital precision is greater than 12 bits (col. 6, lines 1-67).

Regarding claim 19, Chung discloses in a digital communications system, a full-duplex audio path between two devices communicating with one another, comprising: an unbalanced coding scheme wherein digital audio transmitted in a first direction over said full-duplex audio path is encoded using a first encoding scheme different from a second encoding scheme used to encode digital audio transmitted over said full-duplex audio path in a second direction opposite said first direction (col. 2, lines 13-23, col. 4, line 65-col. 6, line 23; figure 1).

Regarding claim 20, Chung discloses in a digital communications system according to claim 19, wherein: a first encoding algorithm of said first encoding scheme is different from a second encoding algorithm of said second encoding scheme (col. Col. 2, lines 13-23, col. 4, line 65-col. 6, line 23).

Regarding claim 21, Chung discloses in a digital communications system according to claim 19, wherein: a bit rate of said first encoding scheme is different from a bit rate of said second encoding scheme (col. 4, line 65-col. 5, line 27, col. 6, lines 1-23).

Regarding claim 23, Chung discloses in a digital communications system according to claim 19, wherein: said first encoding scheme is provided in a base unit of a cellular network; and said second encoding scheme is provided in a mobile handset of said cellular network (col. 2, lines 13-23; figure 1).

Claim Rejections - 35 USC ∋ 103

5. Claims 6-9, 16 and 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chung in view of well known prior art.

Regarding claims 6-9, 16 and 24-27, Chung discloses the digital cordless telephone system according to claims 5, 14 and 23 as described above.

Chung, however, fails to specifically disclose the various types of coding techniques discussed in claims 6-9, 16 and 24-27.

The examiner contends, however, that such techniques are well known in the art, and the examiner takes official notice as such. Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art to modify Chung with such teachings since such encoding techniques have been widely used in digital cordless systems for digitally encoding signals. Such an implementation would only involve routine skill in the art.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Temica M. Beamer whose telephone number is (571) 272-7797. The examiner can normally be reached on Monday-Thursday (alternate Fridays) 7:00am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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